

MINUTES

Technical Committee Meeting

Thursday, February 9, 2006

1:30 p.m.

Conference Room #113

Members Present: Karl Fredrickson, Roger Figard, Randy Hoskins, Virendra Singh, Larry Worth, Public Works/Utilities; Marvin Krout, David Cary, Planning; Marc Wullschleger, Urban Development; Doug Pillard, County Engineering; Steve McBeth, James Miller, NDOR; Jon Large (representing John Wood), Lincoln Airport Authority

Others Present: Kent Morgan, Steve Henrichsen, Planning; Brian Praeuner, Marc Rosso, Karen Sieckmeyer, Public Works/Utilities; Justin Rice, Tom Albury, Lincoln Chamber of Commerce; Dan Norman, Dawn Steffen, HWS; Kerry Eagan, County Board; Jonathan Cook, City Council; Steve Larrick, Friends of Wilderness Park; Mike Piernicky, Olsson Associates

Karl Fredrickson called the meeting to order and roll call was taken.

Agenda Item No. 1 - Review and action on the draft minutes of the January 19, 2006, Technical Committee Meeting.

There being no corrections, Virendra Singh made a motion to approve the minutes. Steve McBeth seconded the motion. Motion carried unanimously with two abstaining.

Agenda Item No. 2 - Briefing and action as needed on the *Initial 2030 Lincoln Metropolitan Area Travel Demand Modeling Activity*.

David Cary handed out an information sheet and gave a brief recap of the process that was taken for the draft 2030 land use modeling. Cary referred to the Working Draft Land Use Map for 2030 which has been through the Technical Committee and Planning Commission. Cary referred to a map which had yellow, green and purple on it. The yellow is the urbanized city as it exists today; the green is the future service limit as it was approved in the 2025; and the purple is the new area that is being added as part of this update process. In fact, five years worth of growth is being added in the Comprehensive Plan for the increase in population and the resulting increase in commercial area. Obviously that transfers into trips on our network. The purple area was added in the draft land use plan, for the purpose of this update, of the Long Range Transportation Plan and the update of the Comprehensive Plan. Cary then referred to the sheet that was handed out. They did some comparisons on what the 2005 numbers are for population and square miles that is in the City limits as of today, as well as going down into the residential dwelling units, commercial square feet, industrial acres, elementary and secondary students, University, Community College students, and park acres. These housing numbers are derived for transportation purposes within the model. A lot of the detailed information is what the model is using to create the number of person trips, therefore, being transmitted to vehicle trips. The

population in 2005 for Lincoln was 243,000 and Lancaster County was 269,600. The 2025 plan as adopted, back in 2002, had 327,000 for Lincoln and 363,000 for the County. The working number for the 2030 update added just five years of growth to the system. The Lincoln population goes from 327,000 to 352,600 and the County population goes from 363,000 to 391,200. Likewise City limits increased approximately 81.7 square miles and that would be the urbanized area by the year 2030 compared to 2025. The residential increased units are approximately 17,000 between 2025 and 2030. The commercial square feet and industrial acres are the numbers that are being used in the model for producing traffic on our system.

We moved to Virendra Singh and Mike Piernicky to talk about the model runs. Singh mentioned that since they were at the Technical Committee last, the Officials Committee has approved Phase I of this project on February 2, 2006. They have now started working on Phase II which basically deals with future conditions. The Planning Commission approved the proposed 2030 Land Use. The road network scenario is needed to support this land use. The information they have now is being developed and you have received some details for two different model runs, 1) uses the 2030 land use on a 2004 network which we will refer to as the no build, and 2) the 2030 land use with a 2025 road network which is from the current Comprehensive Plan. Piernicky from Olsson Associates will go through and provide us with the details of these two model runs. Piernicky presented the beginning background of the work in progress which deals with the 2030 no build and the 2025 approved Comprehensive Plan network. See attached slides from Piernicky's presentation.

Krout asked why the trips would be at a much higher rate than the population? Piernicky stated that it isn't tied directly to the rate. The rates are exactly the same as the trip rates that were used to generate trips for the 2004 base network. Its based upon the square footage of the different land uses which were provided from the base data from the Planning Department. Using that data for the amount of square footage in each of the TAZ, is the scanned rate within the 2030 model. There is the same nine existing special generators which the rates have stayed the same. With regards to that, it is a direct correlation to the square footage that was provided.

When you look at the Purple Heart Highway, Karl Fredrickson asked if that was 16,000 there? Is that one direction, so it would be double that for both directions? Piernicky said for the areas where you see a dual lane or two lines, the numbers that the model projects out are for one direction and you would double it for the total volume. So the 16,000 becomes 32,000. That is based upon how the model plots out volumes and generates them so that you don't end up with so many volumes that you can't remember them.

Krout commented that it would be helpful to look at the levels of service when you take the 2004 network and show the existing traffic. Figard stated that he noticed different levels of service on a divided highway going different directions. Piernicky said it is possible to have different directions at different levels of service based upon the volumes. A lot of the times your volumes can be very similar looking over a 24-hour period.

Piernicky then showed a similar .pdf file that has the 2030 land use and the associated trips on what would be the 2025 approved Comprehensive Plan Transportation Improvement System.

Krout commented that when you have this many F's, it might be helpful to have something like

an F and a double F. He says that because 1.0 volume and capacity isn't always what he has seen used as the cut off and given the fact that eventually we are having to have to prioritize projects. Krout also questioned that he knows the model has other outputs and one of them is travel time and that might be more meaningful to be able to tell people here is your savings in travel time if you make "x" improvements opposed to just level of service files. Piernicky stated that one of the easy ones to look at is the 2004 calibrated with the vehicle hours traveled in the model network and as they post process all of the information that comes out. They will have the exact same numbers for the 2004 network or the 2025 comprehensive network, as well as whatever sketch plans they are able to compare what is the difference to the motoring public with the regard to the amount of time traveled in the system. All of that information will be available. Singh mentioned that we will be looking at various sketch plans.

Agenda Item No. 3 - Briefing on the *Lincoln-Lancaster Long Range Transportation Plan 2030 Update* planning process and schedule.

Randy Hoskins handed out a copy of the calendar the Committee has been working on. The Committee will continue to meet over the next few months. Next Wednesday, they will be taking the presentation to the Planning Commission and get their thoughts and input on the model results. March 2nd, they will be back to the Technical Committee to talk to this group. On March 8th and 9th, they will be going to Planning Commission and taking the larger number of alternative sketch networks to them and asking them to narrow that down to two or three that we can continue with for some further analysis and see what works best. On March 16th, we will be back at the Technical Committee again discussing the Planning Commission decision as far as the limited number of networks that we are going to continue into the analysis. Then on April 20th, this group will be looking at a preliminary analysis of those two or three networks. In May, we will be talking about the CIP/TIP UPWP at the first Technical Meeting and then we will be back for the second meeting in May to talk about the LRTP.

General discussion was held regarding the number of alternative we are asking the Planning Commission to narrow down. Some feel that they should pick more than three alternatives while others feel it would be a budget constraint to do so. If we don't get some of the answers that we feel we need, we can do some additional runs. Another way to approach it is to try to reserve the capacity so if the Planning Commission or subcommittee are not satisfied with the results of the first three alternatives, then they can say we want you to go back and look at three modifications. Hoskins said certainly once we get down to the final alternate that we are working on, even at that point there can be changes to it.

Agenda Item No. 4. - Other topics for discussion.

There being no other topics for discussion, the meeting was adjourned.

2025 Adopted Plan and DRAFT 2030 Comprehensive Plan **Land Use Summary For Lincoln Area**

February 7, 2006

	2005	2025 Plan Compared to 2005	2030 DRAFT Compared to 2005
Population * Persons	Lincoln 243,000 Lancaster County 269,600	Lincoln 327,000 Lancaster County 363,000	Lincoln 352,600 Lancaster County 391,200
Lincoln City Limits Square Miles	81.7	126	133.7

For Lincoln Area **			
Residential Dwelling Units	105,714	143,189	160,114
Commercial Square Feet	38.4 million	54.8 million	68.8 million
Industrial Acres	2,986	5,175	4,686
Elementary & Secondary Students	40,023	56,643	57,642
Univ. & Comm. College Students	33,086	41,582	41,158
Park Acres	6,645	7,522	7,065

NOTES: ALL INFORMATION IS FOR TRAFFIC MODELING PURPOSES BASED ON DRAFT 2030 COMPREHENSIVE PLAN. DATA IS NOT FINAL OR APPROVED AT THIS TIME AND WAS GENERATED FOR MODELING PURPOSES BASED ON SERIES OF ASSUMPTIONS.

*All data is for **January 1, 2005** – note that population is an estimate for Lincoln and Lancaster County.

****Lincoln Area also know as the “Cordon” Area** for traffic modeling purposes – is generally the City of Lincoln and an area 3 to 4 miles surrounding, including Waverly.



Regional Transportation Model Phase II

2030 Model Presentation to the Technical Committee
February 9th, 2006

Michael C. Piernicky, PE, PTOE
Olsson Associates





Agenda

■ Phase I Review

- Approved Feb. 2nd by Officials Committee

■ Phase II-Work In Progress

- 2030 Model Overview
- 2030 No-Build Network
 - 2030 Land Use
 - 2004 Roadway Network
- 2030 w/2025 Comp Plan
 - 2030 Land Use
 - 2025 Approved Comp Plan Road Network

■ Questions?





Trip Assignment

■ Level of Service (LOS)

- *LOS mileage summary table based on V/C ratio*
- *LOS mileage summary table based on percent reduction in actual speed*
- *Screenline results summary table*
- *Functional class summary table for VMT, VHT, Average Speed*
- *Area type summary table for VMT, VHT, Average Speed Count Vs Flow (Assigned volumes) summary statistics for each functional class type*
- *Turn Movements Table*

TABLE 23. LEVEL OF SERVICE – PERCENT REDUCTION IN SPEED USED IN LINCOLN MPO MODEL

Level of Service	Percent Reduction in Posted Speed
A	0
B	1-7
C	8-15
D	16-32
E	33-48
F	>48

35 MPH Posted Speed Example

Level of Service	MPH
A	35
B	34-33
C	33-30
D	30-24
E	24-18
F	<18



Trip Generation

■ Lincoln MPO Total Person Trips

TABLE 16. TOTAL TRIPS BY PURPOSE FOR BASE YEAR 2004

Trip Purpose	Lincoln MPO	Percentage of Trips - Lincoln MPO	Percentage of Trips - West North Central*
Home-based Work	204,025	13.8%	10.9%
Home-based Shopping	302,640	20.5%	21.8%
Home-based Social/Recreational	168,871	11.4%	13.8%
Other Home-based	343,006	23.2%	20.5%
Not Home-based	459,816	31.1%	33.0%
TOTAL	1,478,358	100.0%	100.0%

*Source: National Household Travel Survey(2001), U.S. Department of Transportation, Bureau of Transportation Statistics

2030 - 2,396,956 Person Trips/Day



Mode Split

■ Non-Auto Trips

TABLE 18. PERCENTAGE OF NON-AUTO MODE TRIPS

Trip Purpose	Percentage of Non-Auto Mode Trips
Home Based Work	6.0%
Home Based Shop	0.7%
Home Based Recreational	3.4%
Home Based Other	0.0%
Non Home Based	

TABLE 19. NON-AUTO TRIPS BY PURPOSE

Trip Purpose	Daily Non-Auto Trips	Percentage of Total Non-Auto Trips
Home-based Work	12,242	48.0%
Home-based Shopping	2,118	8.3%
Home-based Social/Recreational	5,742	22.5%
Other Home-based	3,087	12.2%
Non Home-based	2,299	9.0%
TOTAL	25,488	100.0%

2030 - 40,478 Person Trips/Day



Mode Split

■ Vehicle Occupancy

TABLE 20. VEHICLE OCCUPANCY RATES

Trip Purpose	Lincoln MPO Average Vehicle Occupancy (Persons)	West North Central*
Home-based Work	1.18	1.11
Home-based Shopping	1.84	1.84
Home-based Social/Recreational	1.81	1.81
Other Home-based	1.75	1.75
Non Home-based	1.70	1.70
All	1.65	1.65

*Source: National Household Travel Survey(2001), U.S. Department of Transportation, Bureau of Transportation Statistics



Mode Split

■ Vehicle Trips by Purpose

TABLE 21. VEHICLE TRIPS BY PURPOSE

Trip Purpose	Daily Vehicle Trips - Lincoln MPO	Percentage of Trips - Lincoln MPO	Percentage of Trips -West North Central*
Home-based Work	179,026	19.7%	16.1%
Home-based Shopping	164,946	18.1%	22.7%
Home-based Social/Recreational	91,684	10.1%	9.8%
Other Home-based	206,283	22.7%	17.5%
Non Home-based	268,652	29.5%	33.9%
TOTAL	910,591	100.0%	100.0%

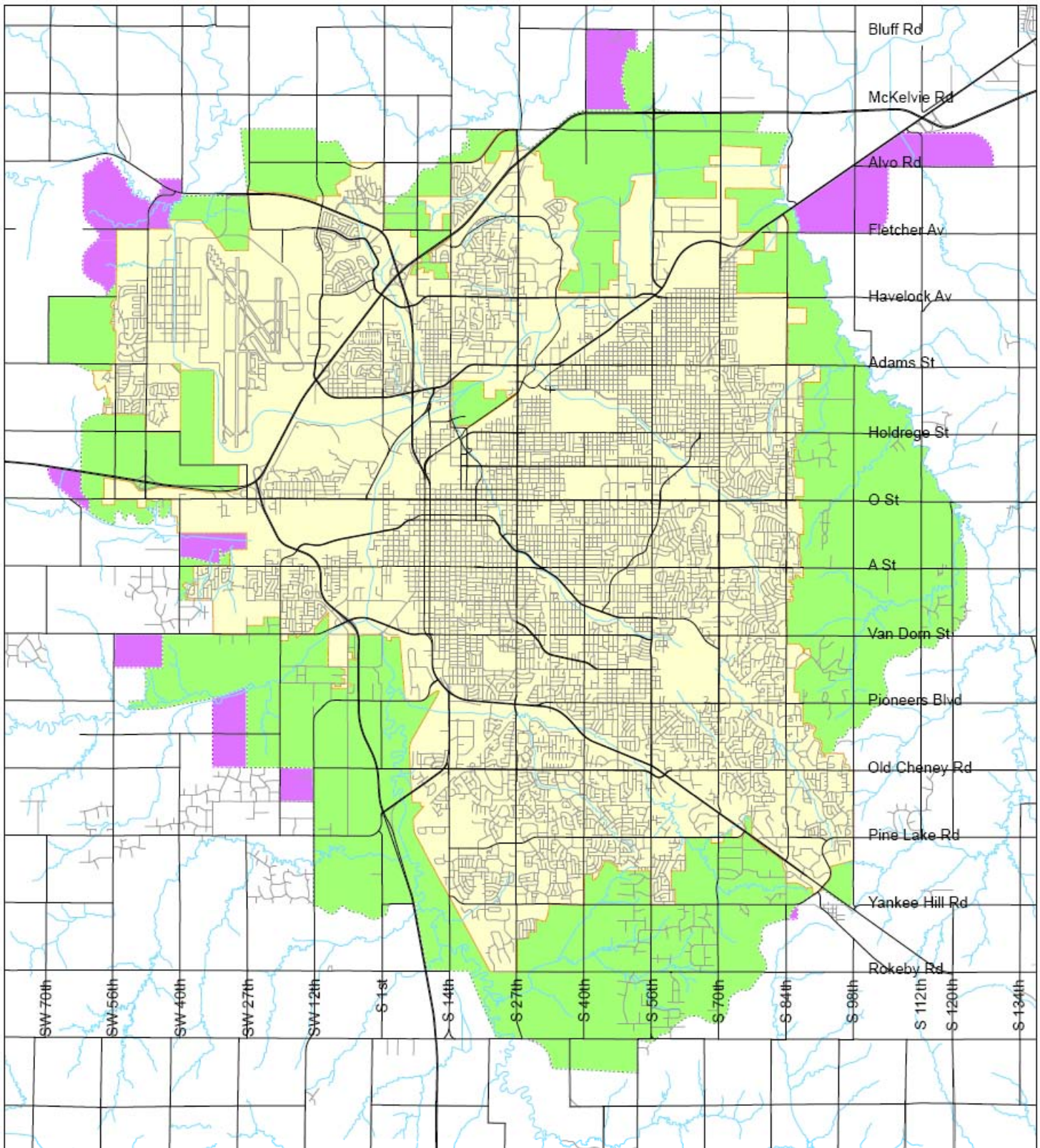
*Source: National Household Travel Survey(2001), U.S. Department of Transportation, Bureau of Transportation Statistics

2030 - 1,481,717 Vehicle Trips/Day



Questions?





2025 - 2030 FUTURE SERVICE LIMIT COMPARISON

LEGEND:

- Existing Lincoln City Limits
- Adopted 2025 Comprehensive Plan Future Service Limit
- Proposed 2030 Future Service Limit Expansion



0 0.5 1 2 Miles

February 8, 2006

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